

What is claim d:

1. A global authentication continuity feature, operable in a cellular communication network, for providing continuity of the global authentication process executing in a serving Mobile Switching Center for a subscriber, who
5 uses a mobile subscriber wireless communication device which has handed off to another Mobile Switching Center during the execution of the global authentication process, comprising:

Mobile Switching Center message identification means, responsive to the
10 receipt of a service request message in the serving Mobile Switching Center from said mobile subscriber wireless communication device, for determining whether said service request message requires initiation of an authentication process; and

handoff determination means, responsive to a determination that said
15 service request message requires initiation of an authentication process, for determining whether the mobile subscriber wireless communication device has handed off to another Mobile Switching Center; and

global authentication message forwarding means located in said serving Mobile Switching Center for transmitting a global authentication continuity
20 message to the other Mobile Switching Center to maintain continuity of the authentication process.

2. The global authentication continuity feature of claim 1 further comprising:

25 message compatibility means located in said serving Mobile Switching Center for determining whether the other Mobile Switching Center can accept said global authentication continuity message.

3. The global authentication continuity feature of claim 2 further
30 comprising:

message formatting means, responsive to a determination that said other

Mobile Switching Center can accept said global authentication continuity message, for generating said global authentication continuity message for transmission to the other Mobile Switching Center.

5 4. The global authentication continuity feature of claim 2 further comprising:

 message formatting means, responsive to a determination that said other Mobile Switching Center can not accept said global authentication continuity message, for terminating processing of said global authentication continuity
10 message.

 5. The global authentication continuity feature of claim 4 further comprising:

 Home Authentication Center means, responsive to a determination that
15 said other Mobile Switching Center can not accept said global authentication continuity message, for transmitting an Authentication Data Message Response to the Mobile Switching Center last serving said mobile subscriber wireless communication device.

20 6. The global authentication continuity feature of claim 1 further comprising:

 reply generation means, responsive to said mobile subscriber wireless communication device being presently served by said serving Mobile Switching Center for transmitting an Authentication Status Report to a Home Authentication
25 Center via the mobile subscriber's Home Location Register.

 7. A method of executing a global authentication continuity feature, operable in a cellular communication network, for providing continuity of the global authentication process executing in a serving Mobile Switching Center for
30 a subscriber, who uses a mobile subscriber wireless communication device which has handed off to another Mobile Switching Center during the execution of

the global authentication process, comprising:

determining, in response to the receipt of a service request message in the serving Mobile Switching Center from said mobile subscriber wireless communication device, whether said service request message requires initiation
5 of an authentication process; and

determining, in response to a determination that said service request message requires initiation of an authentication process, whether the mobile subscriber wireless communication device has handed off to another Mobile Switching Center; and

10 transmitting a global authentication continuity message to the other Mobile Switching Center to maintain continuity of the authentication process.

8. The method of executing a global authentication continuity feature of claim 7 further comprising:

15 determining whether the other Mobile Switching Center can accept said global authentication continuity message.

9. The method of executing a global authentication continuity feature of claim 8 further comprising:

20 generating, in response to a determination that said other Mobile Switching Center can accept said global authentication continuity message, said global authentication continuity message for transmission to the other Mobile Switching Center.

25 10. The method of executing a global authentication continuity feature of claim 8 further comprising:

terminating, in response to a determination that said other Mobile Switching Center can not accept said global authentication continuity message, processing of said global authentication continuity message.

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11. The method of executing a global authentication continuity feature of claim 10 further comprising:

transmitting, in response to a determination that said other Mobile Switching Center can not accept said global authentication continuity message,
5 an Authentication Data Message Response to the Mobile Switching Center last serving said mobile subscriber wireless communication device.

12. The method of executing a global authentication continuity feature of claim 7 further comprising:

10 transmitting, in response to said mobile subscriber wireless communication device being presently served by said serving Mobile Switching Center an Authentication Status Report to a Home Authentication Center via the mobile subscriber's Home Location Register.

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